



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,971	02/12/2002	John M. Harris	8818.001.00	3501
30827	7590	03/01/2004	EXAMINER	
MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006			VAN DOREN, BETH	
			ART UNIT	PAPER NUMBER
			3623	

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

SW

Office Action Summary	Application No.		Applicant(s)	
	10/072,971		HARRIS, JOHN M.	
	Examiner		Art Unit	
	Beth Van Doren		3623	

MW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a Final office action in response to communications received 12/01/03. Claims 1-3, 5-8, and 10 have been amended. Claims 12-16 have been added. Claims 1-16 are now pending in this application.

Response to Amendment

2. Examiner acknowledges Applicant's amendments to claims 2 and 5 in response to the 35 USC § 112, second paragraph, rejections set forth in the previous office action. However, these amendments do not fully remove the issues and therefore 35 USC § 112, second paragraph, rejections are set forth below.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "allowable probability of underestimating an average failure rate" of claim 1, the variables of temperature, hours of operation, and flight cycles of claims 12-14, and the confidence figure of claims 15-16 must be shown or the features canceled from the claims. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections – 35 USC § 112

4. It is unclear in claim 2 as to what the variable α represents. In claim 1, α is used to represent an allowable probability of underestimating an average failure rate. Claim 2 recites that $1-\alpha$ is the probability of the next unscheduled component demand. Based on the broadest

Art Unit: 3623

reasonable interpretation of the variable α as an allowable probability of a failure rate in claim 1, it is unclear how $1-\alpha$ is then supposed to represent the probability of unscheduled component demand. It appears a step may be missing in this conversion. Furthermore, the specification recites in paragraphs 0025 and 0037 that $1-\alpha$ is the upper confidence estimate for lambda, lambda in some instances being the expected failure rate of components. Therefore, it is unclear what specifically these variables represent. For examination purposes, the α of claim 1 and the α of claim 2 are considered to be generic variables and unrelated to each other. Clarification is required.

5. Claim 5 recites the limitation "further comprising eliminating insignificant variables and variables that cause multicollinearity from each of the established models". Based on the recitation, it is unclear at what point this step is occurring in the method and how the step is being implemented (i.e. is each of the models being implemented with the historical data, the variables removed, and then one is chosen, or are variables removed, the models implemented with historical data, and one is chosen, or is a model chosen, implemented with historical data, and the variables removed, etc.). Therefore, one of ordinary skill in the art would not be able to make and use the invention without undue experimentation. Clarification is required.

6. Claims 15 and 16 recite the limitation "wherein the confidence is a function of the statistical models used in the selection of λ ". There is insufficient antecedent basis for this limitation in the claim. Claims 4 and 11, the claims on which 15 and 16, respectively, depend recite "wherein selecting the statistical models comprises selecting a set of equations for λ ". Therefore, claims 4 and 11 do not currently recite that the statistical models are used to select λ (i.e. the selection of the models occurs before the selection of λ) but rather that the models are

Art Unit: 3623

selected by the selection λ (i.e. the selection of λ comes before the selection of the models).

Clarification is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Willemain et al. (U.S. 6,205,431).

8. As per claim 1, Willemain et al. teaches a method of determining time intervals at which unscheduled demand for the components is expected to occur, comprising:

establishing a set of statistical models for a probability of unscheduled component demand as a function of at least one variable pertaining to component usage (See at least figures 2 and 6, column 1, lines 10-45, column 4, lines 15-17, 22-43, and 51-55, column 5, lines 10-20, column 6, lines 45-47, column 7, lines 1-3 and 12-15, column 8, lines 18-26, column 9, line 7, and column 11, lines 35-40, wherein a set of statistical models are established for determining the probability of component demand at a specific time in the future when the demand is not prearranged. The models are a function of at least one variable that pertains to components, such as inventory, usage);

for each component, collecting historical unscheduled component demand data (See at least figures 2 and 3, column 1, lines 35-45, column 3, lines 2-7, column 4, lines 23-29, column

Art Unit: 3623

5, lines 10-20, column 6, lines 45-47, and column 7, lines 1-3, wherein historical unscheduled component demand is collected for the component);

for each component, using the collected historical unscheduled component demand data to select among the plurality of models one model of the probability of unscheduled component demand as a function of time (See at least figures 5 and 6, column 1, lines 10-25 and 35-45, column 4, lines 15-17, 22-43, and 51-55, column 5, lines 10-20, column 6, lines 45-47, column 7, lines 1-3 and 12-15, column 8, lines 18-26, column 9, line 7, and column 11, lines 35-40, wherein one of the methodology models is applied based upon the situation);

for each component, selecting an allowable probability of underestimating an average failure rate, α (See at least column 4, lines 63-67, column 5, lines 1-9, and column 7, lines 57-65, wherein the allowable failure rate is discussed); and

using the selected model of the probability of unscheduled component demand as a function of the at least one variable pertaining to component usage for each component to calculate the time intervals at which the unscheduled component demand is expected to occur (See at least figures 2, 3, and 5, abstract, column 2, lines 66-67, column 3, lines 1-11 and 36-42, column 4, lines 15-32, column 5, lines 25-28, column 6, lines 45-65, column 7, lines 1-5 and 40-48, wherein the model is used to forecast the probable demand for unscheduled component demand as a function of time and what intervals (lead time numbers) that demand will occur).

9. As per claim 2, Willemain et al. teaches a method wherein using the selected model of the probability of unscheduled component demand as a function of the at least one variable pertaining to component usage to calculate the time intervals at which the unscheduled component demand is expected to occur comprises calculating a time interval when the

Art Unit: 3623

probability of the next unscheduled component demand event equals $1-\alpha$ (See column 1, lines 60-67, column 2, lines 1-4, column 7, lines 35-48, column 9, lines 25-35, column 11, lines 35-50, column 12, lines 37-50, column 14, lines 30-42, wherein the probability of the next unscheduled component demand is determined equal to $1-\alpha$).

10. As per claim 7, Willemain et al. teaches a method of forecasting unscheduled demand for a plurality of different components, comprising:

establishing a set of statistical models for modeling unscheduled demand for the components, wherein the statistical models are each a function of at least one variable pertaining to component usage (See at least figures 2 and 6, column 1, lines 10-45, column 4, lines 15-17, 22-43, and 51-55, column 5, lines 10-20, column 6, lines 45-47, column 7, lines 1-3 and 12-15, column 8, lines 18-26, column 9, line 7, and column 11, lines 35-40, wherein a set of statistical models are established for determining the probability of component demand at a specific time in the future when the demand is not prearranged. The models are a function of at least one variable that pertains to components, such as inventory, usage);

for each component, selecting one of the statistical models for a probability of unscheduled component demand (See at least figures 5 and 6, column 1, lines 10-25 and 35-45, column 4, lines 15-17, 22-43, and 51-55, column 5, lines 10-20, column 6, lines 45-47, column 7, lines 1-3 and 12-15, column 8, lines 18-26, column 9, line 7, and column 11, lines 35-40, wherein one of the methodology models is applied based upon the situation); and

for each component, determining a date at which a cumulative probability of unscheduled component demand reaches a predetermined threshold (See at least figures 2, 3, and 5, abstract, column 2, lines 66-67, column 3, lines 1-11 and 36-42, column 4, lines 15-32 and 42-62, column

Art Unit: 3623

5, lines 25-28, column 6, lines 45-65, column 7, lines 1-5 and 40-48, a date is determined at which the probable unscheduled component demand reaches a predetermined threshold level).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-6 and 8-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willemain et al. (U.S. 6,205,431).

12. As per claim 3, Willemain et al. teaches a method wherein each statistical model comprises a statistical distribution (See at least figures 2 and 6, column 1, lines 10-25 and 35-45, column 4, lines 15-17, 22-43, and 51-55, column 5, lines 10-20, column 6, lines 45-47, column 7, lines 1-3 and 12-15, column 8, lines 18-26, column 9, line 7, and column 11, lines 35-40, wherein statistical models and distributions are used). However, Willemain et al. does not expressly disclose that this statistical distribution is a Poisson distribution.

The Poisson distribution is a well-known statistical formula used to model the number of events for a specific time period. Willemain et al. discloses using various statistical models to forecast demand at temporal intervals in the future. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the Poisson distribution as the statistical model in order to increase a user's ability to balance the stock on hand versus the cost

Art Unit: 3623

for maintaining the stock by more accurately predicting the amount of demand (events) for a specific time period, as stated in column 4, lines 30-40.

13. As per claim 4, Willemain et al. teaches selecting the statistical models (See at least figures 5 and 6, column 1, lines 10-25 and 35-45, column 4, lines 15-17, 22-43, and 51-55, column 5, lines 10-20, column 6, lines 45-47, column 7, lines 1-3 and 12-15, column 8, lines 18-26, column 9, line 7, and column 11, lines 35-40, wherein one of the statistical models is applied based upon the situation). However, Willemain et al. does not expressly disclose selecting a set of equations for λ .

It is well known that a parameter or equation is substituted for lambda when using a Poisson distribution. The claims provide for no specific equation or equations for lambda, just that a set of equations is selected. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to select a set of equations for lambda in order to more accurately model the demand-forecasting situation by providing the one parameter needed to complete the Poisson distribution.

14. As per claim 5, Willemain et al. teaches a method using statistical models including at least parametric models and at least one variable pertaining to component usage (See at least figures 2 and 6, column 1, lines 10-25 and 35-45, column 4, lines 15-17, 22-43, and 51-55, column 5, lines 10-20, column 6, lines 45-47, column 7, lines 1-3 and 12-15, column 8, lines 18-26, column 9, line 7, and column 11, lines 35-40, and column 12, lines 20-35, wherein statistical models are used. These models include variables pertaining to component usage). However, Willemain et al. does not expressly disclose eliminating insignificant variables and variables that cause multicollinearity from each of the established models.

It is well known in statistics to detect and remove variables that are found to be insignificant or cause multicollinearity in models. The claims do not provide the specific models or variables and provide no specific process or reason for the removal of the variables, just that the removal occurs. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to remove variables that are insignificant and variables that cause multicollinearity in order to decrease the likelihood of errors in the model by removing the variables that statistically cause these errors to occur. This effect is well known in the art of statistics.

15. As per claim 6, Willemain et al. teaches a method wherein each statistical model comprises a statistical distribution (See at least figures 2 and 6, column 1, lines 10-25 and 35-45, column 4, lines 15-17, 22-43, and 51-55, column 5, lines 10-20, column 6, lines 45-47, column 7, lines 1-3 and 12-15, column 8, lines 18-26, column 9, line 7, and column 11, lines 35-40, wherein statistical models and distributions are used). However, Willemain et al. does not expressly disclose that this statistical distribution is a Poisson distribution.

The Poisson distribution is a well-known statistical formula used to model the number of events for a specific time period. Willemain et al. discloses using various statistical models to forecast demand at temporal intervals in the future. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the Poisson distribution as the statistical model in order to increase a user's ability to balance the stock on hand versus the cost for maintaining the stock by more accurately predicting the amount of demand (events) for a specific time period, as stated in column 4, lines 30-40.

Art Unit: 3623

16. As per claim 8, Willemain et al. teaches a method wherein each statistical model comprises a statistical distribution (See at least figures 2 and 6, column 1, lines 10-25 and 35-45, column 4, lines 15-17, 22-43, and 51-55, column 5, lines 10-20, column 6, lines 45-47, column 7, lines 1-3 and 12-15, column 8, lines 18-26, column 9, line 7, and column 11, lines 35-40, wherein statistical models and distributions are used). Willemain et al. further discloses using Markovian models and Parametric Models (See at least column 9, lines 24-36, and column 12, lines 25-35). However, Willemain et al. does not expressly disclose that this statistical distribution is a N-Erlang distribution.

The Erlang (or N-Erlang) distribution is a well-known statistical distribution used in queuing theory to model the number of events expected to arrive or occur at a specific time period. Willemain et al. discloses using various statistical models to forecast demand events (or arrival of demand) at temporal intervals in the future. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the N-Erlang distribution as the model in order to increase a user's ability to balance the stock on hand versus the cost for maintaining the stock by more accurately predicting the amount of demand for a specific time period, as stated in column 4, lines 30-40.

17. As per claim 9, Willemain et al. teaches selecting the statistical models (See at least figures 5 and 6, column 1, lines 10-25 and 35-45, column 4, lines 15-17, 22-43, and 51-55, column 5, lines 10-20, column 6, lines 45-47, column 7, lines 1-3 and 12-15, column 8, lines 18-26, column 9, line 7, and column 11, lines 35-40, wherein one of the statistical models is applied based upon the situation). However, Willemain et al. does not expressly disclose selecting a set of equations for λ .

It is well known that a parameter or equation is substituted for λ when using a Poisson distribution. The claims provide for no specific equation or equations for λ , just that a set of equations is selected. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to select a set of equations for λ in order to more accurately model the demand-forecasting situation by providing the one parameter needed to complete the Poisson distribution.

18. As per claim 10, Willemain et al. teaches a method wherein each statistical model comprises a statistical distribution (See at least figures 2 and 6, column 1, lines 10-25 and 35-45, column 4, lines 15-17, 22-43, and 51-55, column 5, lines 10-20, column 6, lines 45-47, column 7, lines 1-3 and 12-15, column 8, lines 18-26, column 9, line 7, and column 11, lines 35-40, wherein statistical models and distributions are used). However, Willemain et al. does not expressly disclose that this statistical distribution is a Poisson distribution.

The Poisson distribution is a well-known statistical formula used to model the number of events for a specific time period. Willemain et al. discloses using various statistical models to forecast demand at temporal intervals in the future. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the Poisson distribution as the statistical model in order to increase a user's ability to balance the stock on hand versus the cost for maintaining the stock by more accurately predicting the amount of demand (events) for a specific time period, as stated in column 4, lines 30-40.

19. As per claim 11, Willemain et al. teaches selecting the statistical models (See at least figures 5 and 6, column 1, lines 10-25 and 35-45, column 4, lines 15-17, 22-43, and 51-55, column 5, lines 10-20, column 6, lines 45-47, column 7, lines 1-3 and 12-15, column 8, lines 18-

Art Unit: 3623

26, column 9, line 7, and column 11, lines 35-40, wherein one of the statistical models is applied based upon the situation). However, Willemain et al. does not expressly disclose selecting a set of equations for λ .

It is well known that a parameter or equation is substituted for lambda when using a Poisson distribution. The claims provide for no specific equation or equations for lambda, just that a set of equations is selected. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to select a set of equations for lambda in order to more accurately model the demand-forecasting situation by providing the one parameter needed to complete the Poisson distribution.

20. As per claim 12, Willemain et al. teaches a method wherein the at least one variable pertaining to component usage includes a variable of a specific period (See column 4, lines 23-65, which discusses at least one variable pertaining to component usage). However, Willemain et al. does not expressly disclose that this variable is temperature.

Willemain et al. discloses statistical models that take into account variables related to intermittent time periods when determining unplanned inventory and reorder needs based on temporal usage. Temperature is a variable that has a temporal quality (i.e. summer vs. winter). It is well known that parts experience different life spans based on the temperature and the materials out of which said parts are made. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to consider temperature in the intermittent data of Willemain et al. in order to more efficiently compensate for unscheduled demand by taking into account all factors that would cause a quicker reorder to be necessary, as discussed in at least column 4.

21. As per claim 13, Willemain et al. teaches a method wherein the at least one variable pertaining to component usage includes a variable of the specific period (See column 4, lines 23-65, which discusses at least one variable pertaining to component usage). However, Willemain et al. does not expressly disclose that this variable includes hours of operation.

Willemain et al. discloses statistical models that take into account variables related to intermittent time periods when determining unplanned inventory and reorder needs based on temporal usage. Hours of operation is a variable of temporal quality. It is well known that parts experience more "wear and tear" the more said parts are used and that business hours vary (i.e. some weeks more hours are worked than others). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to consider hours of operation in the intermittent data of Willemain et al. in order to more efficiently compensate for unscheduled demand by taking into account all factors that would cause a quicker reorders to be necessary, as discussed in at least column 4.

22. As per claim 14, Willemain et al. teaches a method wherein the at least one variable pertaining to component usage includes a variable of the specific period and that the component relates to air craft and jet engine tools (See column 4, lines 23-65, which discusses at least one variable pertaining to component usage). However, Willemain et al. does not expressly disclose that this variable includes flight cycles.

Willemain et al. discloses statistical models that take into account variables related to intermittent time periods when determining unplanned inventory and reorder needs based on temporal usage. Willemain et al. further teaches that the spare parts are related to air craft and jet engine tools. Flight cycles are a variable that has a temporal quality (i.e. it is well known that

Art Unit: 3623

more flights occur in certain periods, such as around Thanksgiving, that in other periods). It is also well known that parts experience quicker “wear and tear” with more usage and that more flights in a period would produce more usage. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to consider flight cycles in the intermittent data of Willemain et al. in order to more efficiently compensate for unscheduled demand by taking into account all factors that would cause reorders to be necessary, as discussed in at least column 4.

23. As per claim 15, Willemain et al. teaches a confidence figure as a function of statistical models and selecting the statistical models (See at least figures 5 and 6, column 1, lines 10-25 and 35-45, column 3, lines 20-45, column 4, lines 15-17, 22-43, and 51-55, column 5, lines 10-20, column 6, lines 45-47, column 7, lines 1-3 and 12-15, column 8, lines 18-26, column 9, line 7, and column 11, lines 35-40, wherein one of the statistical models is applied based upon the situation. The likely effectiveness of the generated information is also determined as a function of the statistical models). However, Willemain et al. does not expressly disclose selecting a set of equations for λ .

It is well known that a parameter or equation is substituted for lambda when using a Poisson distribution. The claims provide for no specific equation or equations for lambda, just that a set of equations is selected. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to select a set of equations for lambda in order to more accurately model the demand-forecasting situation by providing the one parameter needed to complete the Poisson distribution.

Art Unit: 3623

24. As per claim 16, claim 16 recites equivalent limitations to the limitations of claim 15 and is therefore rejected using the same art and rationale as in the rejection of claim 15.

Response to Arguments

25. Applicant's arguments with regards to the rejections based on Willemain et al. (U.S. 6,205,431) have been fully considered, but they are not persuasive. In the remarks, Applicant's only contention is that Willemain et al. does not teach or suggest establishing a set of statistical models for a probability of unscheduled component demand as a function of at least one variable pertaining to component usage.

In response to the argument of the Applicant, Examiner respectfully disagrees. Willemain et al. teaches a set of statistical models in at least figure 2, column 1, lines 10-45, column 4, lines 22-43, and 51-67, column 5, lines 1-20, column 7, lines 1-15, column 9, lines 1-25, and column 11, lines 35-40, wherein the models are established for the chance of component demand at a time in the future when the demand is not prearranged (i.e. unscheduled). The outcome of each model is a value representing the chance that a component, such as a part, will be needed when the demand has not been taken into account and scheduled. The models are a function of at least one variable that pertains to components, such as inventory, usage, etc. See column 2, lines 55-65, and column 3, lines 1-15, 25-30, and specifically 37-42, wherein the likely usefulness of the outcome is determined. Examiner points out that there is no specific recitation in claims 1 and 7 as to how the models are for a probability – is the outcome of the model a probability, does the outcome of the established equation (such as a number representing a demand) indicate that there is a chance of demand, etc.

Art Unit: 3623

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kalyan (U.S. 6,266,655) discloses valuing resources at specific time horizons.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beth Van Doren whose telephone number is (703) 305-3882. The examiner can normally be reached on M-F, 8:30-5:00.

Art Unit: 3623

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (703) 305-9643. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

bvd
bvd

January 27, 2004

[Signature]
TARIQ R. HAFIZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3800